



Reissue Appl. No. 10/821,833

DECLARATION OF PROFESSOR LEE A. HOLLAAR

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

(Attorney Docket No. 15550US02)

In the Application of: **BRETSCHER**

Reissue Appl. No.: **10/821,833**

Filed: **April 9, 2004**

Patent No.: **6,370,564 B2**

Granted: **April 9, 2002**

For: **COMPUTER SYSTEM ARCHITECTURE METHOD FOR
MULTI-USER, REAL-TIME APPLICATIONS**

Examiner: **Jason D. Cardone**

Group Art Unit: **2145**

Customer No. : **23,446**

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Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

1. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statement may jeopardize the validity of the application or any patent issued thereon.

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2. I have personal knowledge of the subject matter of this declaration, and if called as a witness, would testify thereto.
3. My name is Lee A. Hollaar. I am a Professor of Computer Science in the School of Computing at the University of Utah, where I have been a faculty member since 1980. Prior to that, I was a faculty member at the University of Illinois at Urbana-Champaign. I received my Ph.D. in Computer Science from the University of Illinois at Urbana-Champaign in 1975. I am also a Registered Patent Agent.
4. As a professor at the Universities of Illinois and Utah, I have taught courses in software and system development, including courses where students had to complete system development projects.
5. I have been retained to give my opinion as to whether this pending application meets the requirements of 35 U.S.C. 112, first paragraph, by providing a disclosure of the invention that is sufficient to enable a person skilled in the art of the invention to make and use the invention without undue experimentation.

"Communications path"

6. The examiner has rejected claims 33 and 34-42, stating that the specification does not teach a person skilled in the art of the claimed invention how to "have a communications path [that] does not 'pass through' the front-end server."
7. In my opinion, the person skilled in the art of the invention would be someone capable of implementing the system as shown in Prior Art Fig. 5. In particular,

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such a person would be capable of configuring terminal server 110 of Fig. 6 and Fig. 7 or X switch 132 of Fig. 8 and Fig. 9.

8. The specification describes how an established communications path between the terminal server or X switch and the front-end processor can be switched by command to a dedicated processor by an appropriate command to the terminal server or X switch. In particular, the specification teaches "The dedicated processor 116 sends a message to the terminal server 110 to route the user's data stream to the chosen dedicated processor 116. After the terminal server 110 obeys this command, the user is no longer connected to the front-end server 112 and is communicating directly with the selected dedicated processor 116." (col 10, lines 3-9).
9. Based on the information above, it is my opinion that the disclosure in this application with respect to having a communications path between the terminal server or X switch and the dedicated processors that does not pass through the front-end server meets the enablement requirement of the first paragraph of Section 112.

"Game applications"

10. The examiner has rejected claims 27 and 28, stating that the specification does not teach a person skilled in the art of the claimed invention how to "incorporate the game application into the embodiment of claim 16." The examiner has also rejected claim 38, stating that the specification does not teach a person skilled in the art of the claimed invention how to "incorporate the game application into the embodiment of claim 34."

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11. In my opinion, the person skilled in the art of the invention would be an experienced programmer of game applications. In particular, such a person would be capable of developing a game application capable of running on the prior art operating environments discussed in the specification starting at col.1, line 25, and going to col. 5, line 27.
12. The specification teaches how an application such as a game is run on a dedicated processor. In particular, an available dedicated processor or one running the appropriate application, such as a particular game, is located by the front-end processor (col. 9. lines 51-60), which, in a described embodiment, loads the application on the dedicated processor if necessary (col 9, line 60 through col. 10, line 1), provides a list of users and their profiles to the dedicated processor (col.10, lines 1-3), and routes the communications from the user to the dedicated processor (col. 10, lines 3-9).
13. After the steps taught in the specification have been completed, the dedicated processor is comparable the monolithic compute server 52 shown in Prior Art Fig. 5, connected to the users of the game or other application. (Of course, the overall system of the application is quite different from the monolithic compute server shown in Fig. 5, having a number of dedicated processors that can be assigned to different applications.) However, rather than running a number of simultaneous applications on the monolithic compute server (see specification col. 4, lines 46-67), only one application is being run on the dedicated processor.

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14. The programming of a game application on a processor dedicated to running of that game is simpler than for a game running on a monolithic compute server running many applications, a programmer of prior art game applications as described in the specification would have been able to implement a game in the environment provided by the claimed invention and described in the specification.
15. Based on the information above, it is my opinion that the disclosure in this application with respect to game applications running on the dedicated processors meets the enablement requirement of the first paragraph of Section 112 with respect to the game application of claims 27, 28, and 38.

"Cellular telephone communications"

16. The examiner has rejected claims 56-65, 68, 69, 78-87, 90, and 91, stating that the specification does not teach a person skilled in the art of the claimed invention how to "have cellular telephone communications within the embodiments of the invention."
17. In my opinion, the person skilled in the art of the invention would be someone familiar with the techniques used to connect a user station to a terminal server, such as illustrated in Prior Art Fig. 5.
18. As noted by the examiner, cellular telephone communications is disclosed in the specification (col. 10, line 38) as one of the possible alternatives to the "modem to modem" communications shown in Prior Art Fig. 5 and in Fig. 7's diagram of one possible embodiment of the invention. Other alternatives include "ISDN, cable modems, digital subscriber loops, [or] satellite".

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19. The particular way of using cellular telephone communications as a replacement for the modem to modem communications described in the specification and shown in the figures will depend on the particular cellular technology and phones being used. Many cellular phones allow a special connection that, with software supplied by the cellular phone manufacturer, emulates a modem. In that case, the skilled artisan would know, from the specification, to replace the modems with cellular phones and the appropriate software.
20. In any case, documentation supplied by the manufacturer of the cellular phone, the provider of the cellular communications service, or a third-party supplier of tools to interface a cellular phone system to a computer such as the terminal service in accordance with the specification would have the information necessary to enable a person familiar with connecting a user station to a terminal server to replace a modem to modem link with a particular cellular telephone communications system.
21. Based on the information above, it is my opinion that the disclosure in this application with respect to cellular telephone communications meets the enablement requirement of the first paragraph of Section 112.

“Connecting two users”

22. The examiner has rejected claims 48-55 and 70-77, stating that the specification does not teach a person skilled in the art of the claimed invention how to “have two users via the Internet and via the front-end server to initiate

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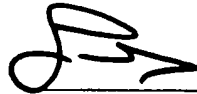
communications with the dedicated processor within the embodiments of the invention.”

23. In light of the amendment of those claims, this issue appears to be moot.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon

Date:

6/27/06



Lee A. Hollaar